IN THE CLAIMS

1. (Currently Amended)   An image compensating method, comprising:

~~using~~ scanning a ~~plurality of scanning lines to scan a~~ document, a longitudinal white pattern, and a longitudinal black ~~and white~~ pattern, thereby producing ~~, in order to produce~~ a plurality of actual gray level values for a plurality of pixels ~~with respect to each of the scanning lines and~~ of the document;

~~, as well as~~ determining a correctional gray level value for complete black and a correctional gray level value for complete white based at least in part on ~~with respect to~~ the longitudinal black and white pattern~~s~~; ~~and~~

~~obtaining~~ determining a compensational gray level value with respect to the actual gray level value for each of the pixels ~~according to~~ based at least in part on the correctional gray level value for complete black, the correctional gray level value for complete white, a theoretical gray level value for complete black, a theoretical gray level value for complete white, and the actual gray level value for each of the pixels; and

compensating a scanned image of the document using the compensational gray level value for each of the pixels.

2. (Currently Amended)   The image compensating method as recited in claim 1, wherein the method is used in a scanner and the scanner comprises:

a top;

a scanning chassis~~, which is~~ configured to be movable under the top; and

a scanning platform ~~that is located~~ disposed at ~~on~~ the top, wherein the scanning platform is configured to support ~~and used to be aligned with~~ the document above the scanning chassis,

wherein the longitudinal black and white pattern~~s~~ are disposed ~~is located~~ on an inner wall of the top ~~on a side near~~ adjacent to the scanning platform, such that the scanning chassis can scan the document and the longitudinal black and white patterns substantially simultaneously ~~so as to allow the scanner to perform image brightness compensation on an image when the chassis of the scanner scans the document~~.

3. (Currently Amended) The image compensating method as recited in claim 1, wherein <u>determining the compensational gray level value for each pixel</u> ~~the method further~~ comprises:

calculating [(each of the actual gray level values with respect to each of the pixels — the correctional gray level value for complete black) / (the correctional gray level value for complete white — the correctional gray level to value for complete black) x (the theoretical gray level value for complete white — the theoretical gray level value for complete black)]~~, so as to obtain the compensational gray level value for each of the pixel~~.

4. (Currently Amended) An image compensating method, comprising:

~~using~~ <u>scanning</u> ~~a plurality of scanning lines to scan~~ a document and a ~~is~~ longitudinal complete white pattern, <u>thereby producing</u> ~~in order to produce~~ a plurality of actual gray level values for a plurality of pixels ~~with respect to each of the scanning lines and~~ <u>of</u> the document<u>;</u>

<u>determining</u>~~, as well as~~ a correctional gray level value for complete white ~~with respect to~~ <u>based at least in part on</u> the longitudinal white pattern<u>;</u> ~~and~~

~~obtaining~~ <u>determining</u> a compensational gray level value with respect to the actual gray level value for each of the pixels ~~according to~~ <u>based at least in part on</u> the correctional gray level value for complete white, a theoretical gray level value for complete white, and the actual gray level value for each of the pixels<u>; and</u>

<u>compensating a scanned image of the document using the compensational gray level value for each of the pixels.</u>

5. (Currently Amended) The image compensating method as recited in claim 4, wherein the method is used in a scanner and the scanner comprises:

a top;

a <u>scanning</u> chassis~~, which is~~ <u>configured to be</u> movable under the top; and

a scanning platform ~~that is located on~~ <u>disposed in</u> the top<u>, wherein the scanning platform is configured to support</u> ~~and used to be aligned with~~ the document <u>above the scanning chassis,</u>

wherein the longitudinal complete white pattern is ~~located~~ <u>disposed</u> on an inner wall of the top ~~on a side near~~ <u>adjacent to</u> the scanning platform, <u>such that the scanning chassis can scan</u>

the document and the longitudinal complete white pattern substantially simultaneously ~~so as to~~ ~~allow the scanner to perform image brightness compensation on an image when the chassis of~~ ~~the scanner scans the document~~.

6. (Currently Amended)   The image compensating method as recited in claim 5, wherein <u>determining the compensational gray level value for each pixel</u> ~~the method further~~ comprises:

calculating [each of the actual gray level values with respect to each of the pixels x (the theoretical gray level value for complete white / the correctional gray level value for complete white)]~~, so as to obtain the compensational gray level value for each of the pixel~~.

7. (Currently Amended)   An image compensating method, comprising:

~~using~~<u>scanning</u> a ~~plurality of scanning lines to scan a~~ document and a longitudinal complete black pattern, <u>thereby producing</u> ~~in order to produce~~ a plurality of actual gray level values for a plurality of pixels ~~with respect to each of the scanning lines and~~ <u>of</u> the document<u>;</u>

determining~~, as well as~~ a correctional gray level value for complete black <u>based at least in part on</u> ~~with respect to~~ the longitudinal black pattern; ~~and~~

~~obtaining~~<u>determining</u> a compensational gray level value with respect to the actual gray level value for each of the pixels ~~according to~~ <u>based at least in part on</u> the correctional gray level values for complete black, a theoretical gray level value for complete black, and the actual gray level value for each of the pixels<u>; and</u>

<u>compensating a scanned image of the document using the compensational gray level</u> <u>value for each of the pixels</u>.

8. (Currently Amended)   The image compensating method as recited in claim 7, wherein the method is used in a scanner, and the scanner comprises:

a top;

a <u>scanning</u> chassis~~, which is~~ <u>configured to be</u> movable under the top; and

a scanning platform ~~that is located on~~ <u>disposed in</u> the top<u>, wherein the scanning platform</u> <u>is configured to support</u> ~~and be aligned with~~ the document <u>above the scanning chassis,</u>

wherein the longitudinal complete black pattern is ~~located~~ disposed on an inner wall of the top ~~on a side near~~ adjacent to the scanning platform, such that the scanning chassis can scan the document and the longitudinal complete black pattern substantially simultaneously ~~so as to allow the scanner to perform image brightness compensation on an image when the chassis of the scanner scans the document~~.

9. (Currently Amended)   The image compensating method as recited in claim 7, wherein determining the compensational gray level value for each pixel ~~the method further~~ comprises:

calculating [each of the actual gray level values with respect to each of the pixels — (the correctional gray level value for complete black — the theoretical gray level value for complete black)] ~~, so as to obtain the compensational gray level value for each of the pixel~~.

10. (New)   An apparatus comprising:

a top portion having a surface;

a scanning chassis configured to be moveable under the top portion;

a scanning platform disposed at the top portion, the scanning platform configured to support a document above the scanning chassis;

a reference pattern disposed on the surface of the top portion adjacent to the scanning platform; and

a processor configured to:

determine actual gray level values for each pixel of a scanned image of the document;

determine compensational gray level values for each pixel of the scanned image; and

compensate the scanned image using the compensational gray level values.

11. (New)   The apparatus of claim 10, wherein the processor is further configured to determine a correctional gray level value based at least in part on the reference pattern.

12. (New)   The apparatus of claim 11, wherein the reference pattern comprises a black pattern and a white pattern, and wherein the processor is further configured to determine a black correctional gray level value and a white correctional gray level value.

13. (New)   The apparatus of claim 12, wherein the processor is further configured to determine the compensational gray level value based at least in part on the black correctional gray level value, the white correctional gray level value, a theoretical gray level value for complete black, a theoretical gray level value for complete white, and the actual gray level value for each of the pixels.

14. (New)   The apparatus of claim 11, wherein the reference pattern comprises a black pattern, and wherein the processor is further configured to determine a black correctional gray level value.

15. (New)   The apparatus of claim 14, wherein the processor is further configured to determine the compensational gray level value based at least in part on the black correctional gray level value, a theoretical gray level value for complete black, and the actual gray level value for each of the pixels.

16. (New)   The apparatus of claim 11, wherein the reference pattern comprises a white pattern, and wherein the processor is further configured to determine a white correctional gray level value.

17. (New)   The apparatus of claim 16, wherein the processor is further configured to determine the compensational gray level value based at least in part on the white correctional gray level value, a theoretical gray level value for complete white, and the actual gray level value for each of the pixels.

18. (New)   The apparatus of claim 10, wherein a length of the reference pattern is equal to or greater than a length of the scanning platform.

19. (New)   An apparatus comprising:

a top having a surface;

means for scanning configured to be moveable under the top;

means for supporting a document above the means for scanning;

means for referencing disposed at the surface of the top adjacent to the means for supporting; and

means for processing configured to:

determine actual gray level values for each pixel of a scanned image of the document;

determine compensational gray level values for each pixel of the scanned image; and

compensate the scanned image using the compensational gray level values.

20. (New)   The apparatus of claim 19, wherein the means for processing is further configured to determine a correctional gray level value based at least in part on the means for referencing.

21. (New)   The apparatus of claim 20, wherein the means for referencing comprises a black pattern and a white pattern and wherein the means for processing is further configured to determine a black correctional gray level value and a white correctional gray level value.

22. (New)   The apparatus of claim 20, wherein the means for referencing comprises a black pattern, and wherein the means for processing is further configured to determine a black correctional gray level value.

23. (New)   The apparatus of claim 20, wherein the means for referencing comprises a white pattern, and wherein the means for processing is further configured to determine a white correctional gray level value.

24. (New)   The apparatus of claim 19, wherein a length of the means for referencing is equal to or greater than a length of the means for supporting.

25. (New)   An article of machine-readable media containing code that, when executed by a machine, causes the machine to:

scan a document and a reference pattern;

determine actual gray level values for each pixel of a scanned image of the document;

determine compensational gray level values for each pixel of the scanned image; and

compensate the scanned image using the compensational gray level values.

26. (New)   The article of claim 25, wherein the code further causes the machine to determine a correctional gray level value based at least in part on the reference pattern.

27. (New)   The article of claim 26, wherein the reference pattern comprises a black pattern and a white pattern and wherein the code further causes the machine to determine a black correctional gray level value and a white correctional gray level value.

28. (New)   The article of claim 26, wherein the reference pattern comprises a black pattern and wherein the code further causes the machine to determine a black correctional gray level value.

29. (New)   The article of claim 26, wherein the reference pattern comprises a white pattern and wherein the code further causes the machine to determine a white correctional gray level value.

30. (New)   The apparatus of claim 25, wherein a length of the reference pattern is equal to or greater than a length of a scanning platform upon which the document is scanned.